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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,687

03/18/2004

Perry H. Monitto

1060-163

6172

28249

7590

02/28/2006

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EXAMINER

DONG, DALEI

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/803,687

Applicant(s)

MONITTO, PERRY H.

Examiner

Dalei Dong

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/19/2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8 and 14-20 are, drawn to a electron source, classified in class 313, subclass 311.
  - II. Claims 9-13 are, drawn to a method of fabricating an electron source, classified in class 445, subclass 24.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as product made and process of making. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, instead fusing the first and second plates to each other at an outer edge thereof; this step could be accomplished by a curing process.

Invention of Group II is classified in a different class and subclass, therefore provides extra burden upon the Examiner and thus restriction is deemed proper. The criteria for establishment of restriction is if it can be shown that the product made can be manufactured by an entirely different process as claimed by applicant. Because the method of making and the apparatus made of a luminous display device with an increased active display area are distinct invention as acquired a separate status in the art as shown by their different classification, restriction for examiner purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventor is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

During a telephone conversation with Mr. Paul J. Farrell on February 16, 2006 a provisional election was made without traverse to prosecute the invention of a luminous display device with an increased active display area, claims 1-8 and 14-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 45-54 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### *Drawings*

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings provided by the Applicant is a sketch drawn by hand. Applicant is advised to employ the services of a competent patent draftsman outside

the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings.

The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-8 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,383,295 to Strattman.

Regarding to claim 1, Strattman discloses in Figures 1-3, a luminous display device with an increased active display area, comprising: a first (12) and second circular plate (16) fused at an outer edge and having an overall diameter (see column 2, lines 20-26); a recess provided on an inner surface of at least one the first (12) and second plates (16) to define an active display portion having a diameter surrounded by an outer rim (14) with a width; a layer of beads (20) held in position in the recess by the first (12) and second fused plates (16) and the outer rim (14); an ionizable gas filling a volume of the recess around the layer of beads (20) (see column 3, lines 5-10); an electrode (24) in communication with the ionizable gas; and a power supply (30) for providing a high frequency voltage applied to the electrode (24) for creating a lighting-like effect, which is

visible in the active display portion of the recess (see column 3, lines 13-22), in the ionizable gas as multiple discharge paths through the layer of beads (20), wherein the diameter of the active display is defined by diameter of the plate substrate the two width of the outer rim.

However, Strattman does not specifically disclose the diameter of the active display is at least 90% of the overall diameter of the circulate plates.

The Examiner asserts that it is old and well known in the art to provide a display device having maximum active display area for the purpose of improving performance, structural strength and durability of flat luminous display devices.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have allow the diameter of the active display is at least 90% of the overall diameter of the circulate plates of Strattman in order to improve performance, structural strength and durability of flat luminous display devices.

Regarding to claim 3, Strattman discloses in Figures 1-3, the layer of beads (20) is coated with a colored phosphorescent material (see column 4, lines 5-11)

Regarding to claim 4, Strattman discloses in Figures 1-3, the layer of beads is coated with a colored phosphorescent material and it would have been obvious to one having ordinary skill in the art to provide plurality of colored phosphorescent materials in order to achieve different color display.

Regarding to claim 5, Strattman discloses in Figures 1-3, the housing of the power supply in the shape of a rectangle, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the housing of the power supply in a circular shape in accordance to the design specification.

Regarding to claim 6, Strattman discloses in Figures 1-3, the housing of the power supply (30) is symmetrically fixed at a center of one of the first (12) and second plates (16).

Regarding to claim 7, Strattman discloses in Figures 1-3, a diameter of each of the beads (20) substantially equals a height of the recess.

Regarding to claim 8, Strattman discloses in Figures 1-3, a plate (14) forms the recess, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made recess in each plates in order to accommodates the layer of beads.

Regarding to claim 14, Strattman discloses in Figures 1-3, a luminous display device with an increased active display area, comprising: a first (12) and second circular plate (16) fused at an outer edge and having an overall radius (see column 2, lines 20-26); a recess provided on an inner surface of at least one the first (12) and second plates (16) to define an active display portion having a radius surrounded by an outer rim (14); a

Art Unit: 2879

layer of beads (20) held in position in the recess by the first (12) and second fused plates (16) and the outer rim (14); an ionizable gas filling a volume of the recess around the layer of beads (20) (see column 3, lines 5-10); an electrode (24) in communication with the ionizable gas; and a power supply (30) for providing a high frequency voltage applied to the electrode (24) for creating a lighting-like effect, which is visible in the active display portion of the recess (see column 3, lines 13-22), in the ionizable gas as multiple discharge paths through the layer of beads (20), wherein the active display area is defined by area of the active display area.

However, Strattman does not specifically disclose the area of the active display is at least 90% of the overall area of the circulate plates.

The Examiner asserts that it is old and well known in the art to provide a display device having maximum active display area for the purpose of improving performance, structural strength and durability of flat luminous display devices.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have allow the diameter of the active display is at least 90% of the overall diameter of the circulate plates of Strattman in order to improve performance, structural strength and durability of flat luminous display devices.

Regarding to claim 15, Strattman discloses in Figures 1-3, the layer of beads (20) is coated with a colored phosphorescent material (see column 4, lines 5-11)



Regarding to claim 16, Strattman discloses in Figures 1-3, the layer of beads is coated with a colored phosphorescent material and it would have been obvious to one having ordinary skill in the art to provide plurality of colored phosphorescent materials in order to achieve different color display.

Regarding to claim 17, Strattman discloses in Figures 1-3, the housing of the power supply in the shape of a rectangle, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the housing of the power supply in a circular shape in accordance to the design specification.

Regarding to claim 18, Strattman discloses in Figures 1-3, the housing of the power supply (30) is symmetrically fixed at a center of one of the first (12) and second plates (16).

Regarding to claim 19, Strattman discloses in Figures 1-3, a diameter of each of the beads (20) substantially equals a height of the recess.

Regarding to claim 20, Strattman discloses in Figures 1-3, a plate (14) forms the recess, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made recess in each plates in order to accommodates the layer of beads.

Art Unit: 2879

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,383,295 to Strattman in view of U.S. Patent No. 6,603,254 to Ando.

Regarding to claim 2, Strattman discloses in Figures 1-3, a luminous display device with an increased active display area, comprising: a first (12) and second circular plate (16) fused at an outer edge and having an overall diameter (see column 2, lines 20-26); a recess provided on an inner surface of at least one the first (12) and second plates (16) to define an active display portion having a diameter surrounded by an outer rim (14) with a width; a layer of beads (20) held in position in the recess by the first (12) and second fused plates (16) and the outer rim (14); an ionizable gas filling a volume of the recess around the layer of beads (20) (see column 3, lines 5-10); an electrode (24) in communication with the ionizable gas; and a power supply (30) for providing a high frequency voltage applied to the electrode (24) for creating a lighting-like effect, which is visible in the active display portion of the recess (see column 3, lines 13-22), in the ionizable gas as multiple discharge paths through the layer of beads (20), wherein the diameter of the active display is defined by diameter of the plate substrate the two width of the outer rim, and the diameter of the active display is at least 90% of the overall diameter of the circulate plates.

However, Strattman does not disclose the width of the outer rim falls with in a range of 0.35 to 0.6 inches.

Ando teaches in Figures 1-3, a luminous display device with an increased active display area, comprising the width of the outer rim (103) falls within a range of 0.35 to

Art Unit: 2879

0.6 inches (see column 5, lines 5-6) for the purpose of providing a hermetically sealed display device.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the outer rim of the Strattman with the dimension of Ando in order to provide a hermetically seal a display device.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of composition of a luminous display device with an increased active display area.

U.S. Patent No. 4,403,831 to Amano.

U.S. Patent No. 6,512,331 to Fu.

U.S. Patent No. 6,692,325 to Hibino.

U.S. Patent No. 6,762,556 to Winsor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (571)272-2370. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

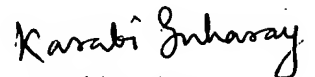
Art Unit: 2879

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D.D.

February 17, 2006



Karabi Guharay  
Primary Examiner  
Art Unit 2879